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Other transmission fibers have been designed which exhibit negative dispersion and positive slope over the transmission band. Such fibers are disclosed for example in U.S. Patent [5,609,562] 6,091,873 and are conventionally known as negative non-zero dispersion shifted fibers (negative NZDSF), or reverse dispersion fibers (RDF). These fibers exhibit zero dispersion at a wavelength above the "C" band, and typically exhibit positive dispersion slope. One type of RDF exhibits dispersion at 1550 nm of –1.32 ps/nm/km, with a slope of 0.053 $ps/nm^2/km$. No effective method exists in the prior art for compensation for the dispersion of long lengths of these fibers. Standard single mode fiber has positive dispersion which may be utilized to compensate for the dispersion of the RDF, however its low dispersion, on the order of 17 ps/nm/km at 1550 nm requires a long length of fiber to compensate for the dispersion, thus incurring unwanted losses. In addition, the slope of the single mode fiber is of the same sign as the RDF, and thus does not compensate at all for the slope. There is thus a need for a fiber with strongly positive dispersion. It is also desirable that the fiber have a negative slope so as to compensate as well for the dispersion slope.